

Amendments to the Drawings:

Fig. 1 has been amended to show a control line 25 extending from the baseband component to the radio-frequency component. A Replacement sheet and an annotated sheet showing the changes made are being included herewith. The amendment to the Fig. 1 is not believed to add new matter to the specification of the instant application.

Attachment: Replacement Sheet
 Annotated Sheet Showing Change

Remarks:

Applicants appreciatively acknowledge the Examiner's confirmation of receipt of Applicants' claim for priority and certified priority document under 35 U.S.C. § 119(a)-(d).

Reconsideration of the application is respectfully requested.

Claims 1 - 19 are presently pending in the application.

Claims 13 and 17 - 19 have been amended. New claim 20 has been added. As it is believed that the claims were patentable over the cited art in their original form, the claims have not been amended to overcome the references.

In item 4 of the above-identified Office Action, the drawings were objected to as allegedly not showing every feature of the invention specified in the claims. More particularly, item 4 alleged that the drawings did not show "a data line for serial data transmission", "a bit clock line", "a word clock line", "a selection line" and "a control line for driving power amplifier". Applicants respectfully disagree.

More particularly, Fig. 1 of the instant application shows a three conductor connection 21. The three conductor connection 21 shown in Fig. 1 includes the "a data line for serial data transmission of payload data", "a bit clock line", and "a word clock line". This can be seen clearly from the specification

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of the instant application, for example, on page 19 of the instant application, lines 6 - 10, which state:

By way of example, Fig. 2 shows signal waveforms on the three lines comprising the word line WA0, the bit clock line CL0 and the data line TX which are formed from the first digital multiple conductor connection 21. [emphasis added by Applicants]

See also, for example, page 16 of the instant application, lines 8 - 10, which states:

Fig. 2 is a timing line shows examples of signal waveforms on the three-conductor connection for transmission of the payload data via the interface shown in Fig. 1; [emphasis added by Applicants]

See also, for example, the three conductor connection 22 shown in Fig. 1 including "a data line for serial data transmission of configuration data" and "a bit clock line", as described on page 22 of the instant application, lines 1 - 10.

As such, as can clearly be seen from the above, the word line WA0, the bit clock line CL0 and the data line TX for serial data transmission of payload data are shown in Figs. 1 and 2 of the instant application (i.e., multiple conductor connections 21 and 22 of Fig. 1; WA0, CL0, and TX of Fig. 2).

Further, Applicants' claimed "selection line" is shown in Figs. 1 and 3 of the drawings. More particularly, the selection line is represented by the multiple conductor

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connection 22 of Fig. 1 of the instant application, and as the the selection line en_div of Fig. 3 of the instant application. This selection line en_div, is described in the specification of the instant application, for example, on page 22 of the instant application, lines 1 - 10, which state:

Fig. 3 shows the waveform of the signals via the total of three lines in the second digital multiple conductor connection 22 as shown in Fig. 1, based on an example. The second digital multiple conductor connection 22 is also designed for serial data transmission via the line data_out and additionally has a line for the bit clock clk_ser, as already described in Fig. 2, as well as a third line en_div for module selection, by means of which the module 3 which receives the configuration data or a circuit element of it, can be activated. [emphasis added by Applicants]

As such, the selection line recited in Applicants' claims is shown in the drawings as the multiple conductor connection 22 of Fig. 1, and line en_div of Fig. 3.

Applicants have amended Fig. 1 to show a control line 25. As such, Applicants are appending hereto, a replacement sheet and an annotated sheet showing the change made to Fig. 1.

Additionally, the paragraph starting on page 17 of the instant application, line 9, has been amended herein to reflect the amendment to the drawings. The amendments to Fig. 1, as well as the amendments to page 17 of the specification, are supported by the specification of the instant application, as

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filed. For example, page 14 of the instant application, line 24 - page 15, line 2, stated:

In a further preferred embodiment of the present invention, an additional control line for driving a power amplifier for amplification of the radio-frequency signal is provided between the baseband component and the radio-frequency component.

It is believed that no new matter was added to the specification of the instant application, by way of this amendment.

In view of the foregoing, Applicants believe that the drawings of the instant invention show the elements of the claims. Thus, Applicants respectfully request that the objection to the drawings be withdrawn.

In item 6 of the Office Action, the specification was objected to as having "redundant" information after line 12 of the Abstract of the Disclosure. The Abstract has been amended, herein, to delete the objected to "redundant" information. Additionally, a clean copy of the Abstract of the Disclosure has been provided on page 5 of the instant response, separate from any other text, in accordance with MPEP § 608.01(b).

In item 7 of the Office Action, claims 17 - 19 were objected to as allegedly being awkwardly written. Applicants have

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amended those claims, in an effort to address the Examiner's concerns raised in item 7 of the Office Action.

In item 8 of the Office Action, claims 1 - 19 were rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Lucent Technologies, "W7020 Bluetooth Radio Module," Preliminary Data Sheet, September 2000, 36 pages ("LUCENT")

Applicants respectfully traverse the above rejections.

More particularly, claim 1 recites, among other limitations:

a first digital multiple conductor connection for transmitting the payload data connected between said input/output of said baseband component and said input/output of said radio-frequency component;

. . . .

said first digital multiple conductor connection including:

a data line for serial data transmission of payload data;

a bit clock line for transmission of a clock signal, with in each case one bit of the data line being associated with in each case one clock period; and

a word clock line for indicating a start of transmission of a sequence of bits on said data line.
[emphasis added by Applicants]

As such, Applicants' independent claim 1 requires, among other things, **a first digital multiple conductor connection for transmitting payload data between a baseband component and a**

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radio-frequency component, the **first digital multiple conductor connection** including a data line, a bit clock line and a word clock line. It can also be seen from the above-cited portion of claim 1, that the word clock line of Applicants' claimed first digital multiple conductor connection indicates a start of transmission of a sequence of bits on the data line of the first digital multiple conductor connection.

However, contrary to Applicants' invention of claim 1, the **LUCENT** reference does not teach or suggest a **first digital multiple conductor connection**, precisely as claimed by Applicants.

More particularly, Fig. 2 of the **LUCENT** reference, discloses a baseband interface connected between a radio subsystem and a baseband IC. Page 5 of the Office Action analogized pin 22 (TX_DATA) of Fig. 2 of the **LUCENT** reference, to the "data line" of the first digital multiple conductor connection of Applicants' claim 1. Additionally, page 5 of the Office Action analogized pin 2 (TX_CLK) of Fig. 2 of the **LUCENT** reference, to the bit clock line of the first digital multiple conductor connection of Applicants' claim 1. Page 5 of the Office Action further analogized pin 34 (SYS_CLK) of Fig. 2 of the **LUCENT** reference, to the "word clock line" of the first

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digital multiple conductor connection of Applicants' claim 1.

However, according to Table 2 on page 11 of the **LUCENT** reference, while the TX_CLK signal is indeed synchronized with TX_DATA, the SYS_CLK signal of the **LUCENT** device is not synchronized with TX DATA, but rather, is synchronized with **RX_DATA**. As such, the SYS_CLK signal of **LUCENT** gives synchronization information for the opposite datastream direction, namely the receiving data which is transmitted from the RF frontend to the baseband IC. The **LUCENT** reference completely fails to teach or suggest, among other limitations of Applicants' claims, a word clock line for indicating a start of transmission of a sequence of bits on said data line, as required by Applicants' present claim 1.

Note that, according to Fig. 2 of the **LUCENT** reference, the clock control outputs TX_CLK and SYS_CLK are both connected from the radio subsystem to the baseband IC, and not in the opposite direction, as in Applicants' invention.

In view of the foregoing, it can be seen that the **LUCENT** reference clearly fails to teach or suggest, among other limitations of Applicants' claim 1, a first digital multiple conductor connection including: a data line for serial data transmission of payload data; a bit clock line for

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transmission of a clock signal; and a word clock line for indicating a start of transmission of a sequence of bits on the data line.

Additionally, Applicants' claim 1 requires, among other limitations, a **distinct** and particularly defined **first** digital multiple conductor connection for transmitting the **payload data** connected between the input/output of the baseband component and the input/output of the radio-frequency component, as well as a **distinct second** digital multiple conductor connection **for transmitting the configuration data** connected between the input/output of the baseband component and the input/output of the radio-frequency component. Some advantages to this separation are disclosed on page 18 of the instant application, lines 14 - 24, which states:

Since the interface 2 is an exclusively digital interface, the base module 1 can advantageously be designed completely using digital circuitry. Furthermore, the complete separation of the respective digital payload data transmission from the configuration data transmission allows the baseband component 1 configuration to be considerably simplified, since there is no coupling of data provided from the digital signal processor 11 and data provided from the microcontroller 12. Furthermore, there is no need for the hybrids (that is to say partially analog and partially digital circuitry) which were previously normally used in baseband modules.

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As can be seen, Applicants' invention of claim 1 requires two different multiple conductor connections, one transmitting the payload data, the other transmitting the configuration data.

In contrast to the invention of Applicants' claim 1, the LUCENT reference fails to teach or suggest, among other limitations of Applicants' claim 1, a first multiple conductor connection including the three specific conductor connections required by Applicants' claim 1. In fact, LUCENT fails to teach or suggest, among other things, any clear separation of the conductors of the first digital multiple conductor connection (including the conductor for payload data) and the conductors of the second digital multiple conductor connection (including the conductor for configuration data), as required by Applicants' claim 1. The separation of the first and second conductor connections of Applicants' claim 1 provides for a clear distinction between the transmission of payload data and the transmission of configuration data. This distinction would not exist in the system of LUCENT, due to that systems failure to separate the conductors transmitting payload data and configuration data.

In view of the foregoing, it can be seen that the invention of Applicants' claim 1 is patentable over the disclosure in the LUCENT reference.

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Applicants' independent claim 8 is also patentable over the LUCENT reference. Applicants' independent claim 8 requires, among other limitations:

a first digital multiple conductor connection for transmission of the payload data connected between said input/output of said baseband component and said input/output of said radio-frequency component; and

a second digital multiple conductor connection for transmission of the configuration data connected between said input/output of said baseband component and said input/output of said radio-frequency component;

said second digital multiple conductor connection including:

a data line for serial data transmission of the configuration data;

a bit clock line for transmitting a clock signal with one clock period each associated with one bit each on the data line; and

a selection line for activating said radio-frequency component.

As can be seen, Applicants' claim 8 also requires, among other limitations, a **distinct first** digital multiple conductor connection for transmitting the payload data connected between the input/output of the baseband component and the input/output of the radio-frequency component, as well as, a **distinct** and particularly defined **second** digital multiple conductor connection for transmitting the configuration data

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connected between the input/output of the baseband component and the input/output of the radio-frequency component. As with Applicants' claim 1, the invention of Applicants' claim 8 requires, among other things, **two different multiple conductor connections, one transmitting the payload data, the other transmitting the configuration data.**

The **LUCENT** reference fails to teach or suggest, among other limitations of Applicants' claims, a second multiple conductor connection **including the three specific conductor connections** required by Applicants' claim 8. In fact, as discussed above, **LUCENT** fails to teach or suggest, among other things, **any clear separation of the conductors of the first digital multiple conductor connection** (including the conductor for payload data) **and the conductors of the second digital multiple conductor connection** (including the conductor for configuration data), as required by Applicants' claim 8. As discussed above, in connection with claim 1, the separation of the first and second conductor connections of Applicants' claim 8 provides for a clear distinction between the transmission of payload data and the transmission of configuration data. This distinction would not exist in the system of **LUCENT**, due to that systems failure to separate the conductors transmitting payload data and configuration data.

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In view of the foregoing, it can be seen that the invention of Applicants' claim 8 is patentable over the disclosure in the LUCENT reference.

Further, Applicants' claim 13 is also believed to be patentable over the LUCENT reference. More particularly, Applicants have amended claim 13 to recite, among other limitations:

a radio-frequency component for conversion of the baseband signal to a radio-frequency signal to be transmitted, said radio-frequency component having an input/output for digital data transmission and being connected, via an interface, to said input/output of said baseband component for digital transmission of payload data to be transmitted via a first multiple conductor connection, and of configuration data for configuration of said radio-frequency component via a second multiple conductor connection, separate from said first multiple conductor connection; [emphasis added by Applicants]

As such, the Applicants' amended claim 13, like claims 1 and 8, recites, among other limitations, the transmission of payload data via a first multiple conductor connection, and of configuration data via a second multiple conductor connection, separate from the first multiple conductor connection. As discussed above in connection with claims 1 and 8, the LUCENT reference fails to teach or suggest, among other limitations of Applicants' claims, any clear separation of the conductors of the first digital multiple conductor connection (including the conductor for payload data) and the conductors of the

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second digital multiple conductor connection (including the conductor for configuration data), as required by Applicants' amended claim 13. As such, Applicants' claim 13 is additionally believed to be patentable over the **LUCENT** reference.

Applicants have additionally added a new dependent claim 20, depending from claim 1, to the instant application. Claim 20 recites, among other limitations, that the conductors of the first digital multiple conductor connection are unidirectional data lines. Such amendments are supported by the specification of the instant application, for example, on page 18 of the instant application, lines 5 - 12, which state:

While the two multiple conductor connections 21, 22 as well as the synchronization line 22 **are in the form of unidirectional data lines** in the present exemplary embodiment, that is to say they are designed to transmit only in the direction from the baseband component 1 to the radio-frequency component 3, the interrupt request line 24 is designed for transmission in an opposite signal direction from the radio-frequency component 3 to the baseband component 1.
[emphasis added by Applicants]

The **LUCENT** reference neither teaches, nor suggests, among other limitations of Applicants' claims, data lines of a first digital multiple conductor connection being unidirectional, transmitting from the baseband component to the radio-frequency component. According to the **LUCENT** reference, both clock signals cited in the Office Action (i.e., TX_CLK and

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SYS_CLK) are clearly transmitted in the opposite direction, namely from the radio subsystem to the baseband IC. As such, Applicants' claim 20 is additionally believed to be patentable over the LUCENT reference.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 1, 8 and 13. Claims 1, 8 and 13 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claims 1, 8 or 13.

In view of the foregoing, reconsideration and allowance of claims 1 - 20 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Additionally, please consider the present as a petition for a one (1) month extension of time, and please provide a one (1) month extension of time, to and including, July 9, 2007 to respond to the present Office Action.

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Please charge the extension fee for response within a period of one (1) month pursuant to Section 1.136(a) in the amount of \$120.00 to the Deposit Account of Lerner Greenberg Stemmer LLP, No. 12-1099

Please provide any additional extensions of time that may be necessary and charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemmer LLP, No. 12-1099.

Respectfully submitted,



For Applicants

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July 9, 2007

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Annotated Sheet

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